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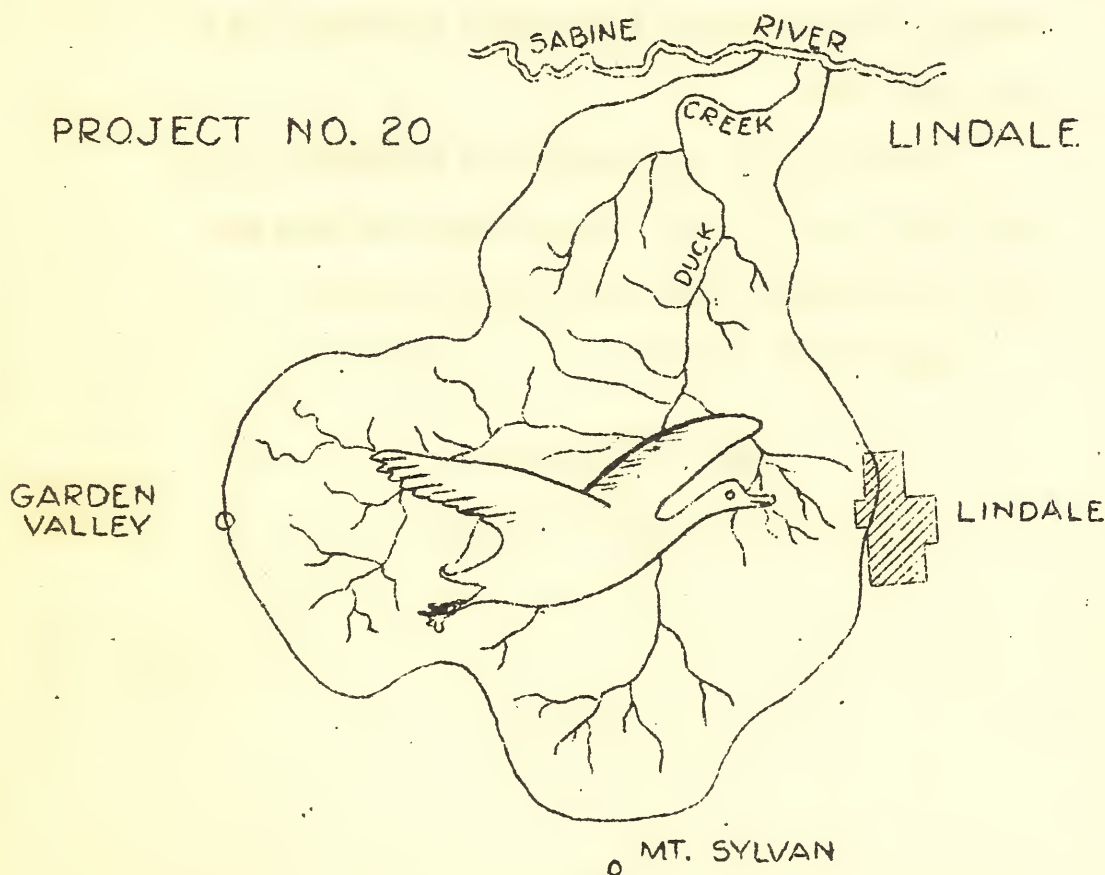
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DUCK CREEK NEWS

UNITED STATES
DEPARTMENT OF THE INTERIOR
SOIL EROSION SERVICE

PROJECT NO. 20

LINDALE TEXAS



DEC 20 1934

To the people of the Duck Creek Area and to all
our friends, the staff of the Soil Erosion Service
extends its best wishes for a Merry Christmas and a
Happy New Year.

You have given us pleasure and happiness in our
work with you. We hope that our work has been and
will be of genuine value and service to you.

Again we say to you,

MERRY CHRISTMAS!

A HAPPY AND PROSPEROUS NEW YEAR!

CHRISTMAS GIFTS

Again we come to the season when we celebrate the birth of the One who was the first to teach mankind "It is more blessed to give than to receive". That was a very novel thought in His day--a thought which ran counter to the basic impulses of a selfish world. But since Jesus first stressed this seemingly absurd statement, it has been tested out time without number and found to be true.

Jesus stands out in history as a giver--a giver of love, a giver of health and strength to the afflicted, a giver of loaves and fishes to the hungry. On one occasion, by way of illustrating parental love, he asked, "What man is there of you whom if his son ask bread, will he give him a stone?"

A practical application of that may be made in the matter of soil saving. Our children look to us to pass on--to give--to them land as good as we found it. If we give them, instead, farms from which all the topsoil has been washed--soil on which they cannot possibly make a decent living--are we not giving them stones instead of bread? We received from our fathers in a usable condition the soil which we farm. At this Christmas season let us remember, "It is more blessed to give than to receive".

A CIVILIZATION CHOKED BY MUD

A NEW explanation of why the great Maya civilization of Central America, undoubtedly the highest of prehistoric America, suddenly faded and vanished without any obvious reason was suggested recently to the Washington Academy of Sciences by Dr. C. Wythe Cooke of the U. S. Geological Survey. Says Dr. E. E. Free, in his WEEK'S SCIENCE (New York):

"The Maya civilization choked itself to death, Dr. Cooke believes, with mud washed from its own hillside corn patches. The former Maya country is marked today, Dr. Cooke reports by many small, flat plains of sticky clay soil, almost impassable in wet weather. Each of these plains, he believes, once was a small lake, these lakes being connected by streams or by short portages forming a system of water highways as the lakes of North America once did for the canoes of the Indians. The Maya cities, he believes, were built near these lake highways, and maintained by this easy form of transportation. On near-by hillsides, the theory continues, the Maya farmers grew the corn, which was their chief food. In so doing they cut or burned the natural hillside vegetation. The result was that every violent rain-storm washed a part of the hillside soil down into the lakes. Slowly the lakes filled up and the hillsides grew bare. The filling of the lakes blocked the waterways, while erosion of the hillside soils ruined the farms and lowered the nation's supply of food. Finally, Dr. Cooke believes, the entire Maya nation was forced by poverty and famine to migrate to new homes in Yucatan, which is what the historical and other records show that they did." -- LITERARY DIGEST, September 5, 1931.

SOD-STRIPPING TERRACE OUTLET CHANNELS

Sodding of terrace outlets and outlet channels to prevent scouring and severe cutting is a phase of work on the Duck Creek Project which has caused a great deal of favorable comment from visitors.

Getting the water accumulated by terraces down the slopes without cutting a gully has always been a problem. Where the water can be emptied on well sodded pasture or in woodland that is not grazed or burned the problem is solved, but often such places are not available, and a suitable channel must be provided. Permanent structures of rock masonry, cement-sand bags and other materials play their part in stabilizing such channels but where grass can be used it provides a more economical, satisfactory means of protection.

Under the system being used, strips of Bermuda sod twelve inches wide and three inches thick are cut with a sod cutter. These strips are cut into eight foot lengths, have a 1" x 10" board slipped under them so they may be lifted into a truck without tearing the sod, and are transported to the channel where they are to be used.

In the channel itself trenches five inches deep by thirteen inches wide are cut across the floor and up the side banks high enough to take care of a maximum flow of water. These trenches are spaced so as to give a three foot interval between strips. Since in practically every instance the channel bottom is in the infertile clay subsoil, it has been advisable to distribute a thin layer of manure in the trench to give the grass a quicker start. The manure is covered with an inch of topsoil to prevent burning. The board load of sod is then slid into the trench, tamped, and covered with a thin layer of soil to protect from freezing.

The effectiveness of the strips in preventing washing has already been demonstrated. Channels which had had the sod in place only two or three days withstood a 1.82 inch rain which fell within a space of a few hours, and showed practically no signs of washing, either on or between strips. Cutting at the lower edge of the spreader, such as is common where pole spreaders or other such means are used, was almost entirely absent.

Costs of installation of the strips is low, considering protection obtained and in comparison with other devices. Labor required to cut the sod, transport, cut trenches, place sod and complete installation, figures less than one-half hour man labor per lineal foot of channel.

Experience to date leads to the conclusion that channels with up to six percent slope, and possibly higher, with a drainage area up to twenty-five acres, may be effectively protected by the sod strip method.

GOOD WORK

We wish to congratulate the following cooperators for the excellent work they have done in clearing and contour furrowing their pastures: Mr. O. C. Sharman, Mr. C. W. Flewellen, Mr. E. W. Gimble (County Farm), Mrs. W. F. Lovelady and Mr. Sam Henderson, Mr. S. H. Ferguson, and Mr. S. S. Copeland. Other good work has been done, but we believe these are outstanding up to this time. We feel sure that the time and labor spent in doing an extra good job will be abundantly repaid by the greater control of erosion and better pastures.

GOPHER CONTROL

During the past two weeks meetings at which plans for eradicating the gophers (salamanders) in the Duck Creek watershed were discussed have been held in six communities in the watershed. Attendance at some of these meetings was light because of the freezing weather, so we wish to call your attention to what is to be done.

The gopher killing work will be done both on farms of cooperators and those who are not yet cooperating if the owner wants it. In a few days every farm owner and operator in the area will receive a letter telling him about the work. In this letter will be enclosed a post card, which when filled out and returned to us, will be our "passport" to go after the gophers on the farm. Remember, we will not work on any farm where the owner is not willing, and does not invite us to help him rid his farm of these pests.

The first move in this war will be the placing of poisoned baits in the gopher tunnels or runs. This work will be done by our own crews of men. The run is located by use of a probe, and the bait, pieces of sweet potato sprinkled with strychnine alkaloid and saccharine, dropped in. This bait has been widely used and will kill eighty to ninety percent of the gophers.

In order to completely eradicate the gophers in the watershed, so that every one may enjoy the benefits of the work, we are asking the farmers to start trapping a few days after the poison has been put out. This will be necessary to get the remaining ten to twenty percent, which if left will multiply and spread and reinfest the entire area by next year. If the farmer does not have traps, he may use Soil Erosion Service traps, which will be checked out at the Lindale office to those who want them.

There is no need of telling farmers of the Duck Creek area how much damage gophers do. It is reported that one man near Lindale had fifty bushels of damaged sweet potatoes from a three acre patch this year. We know that they are responsible for starting many a gully down a hillside, because the water follows their tunnels. We know that the best sod pasture can be so damaged by them that it loses much of its ability to hold the soil in place. Terraces, terrace outlet structures, contour furrows in pastures or any other structure which may be used to prevent erosion is never safe as long as gophers are present, because of their habit of burrowing through or around such structures.

If every farmer in the area will cooperate in this effort to completely kill out the gophers, it will mean that for several years at least a little trapping each year will keep damage down to a minimum. If one man fails to cooperate, his farm will be a breeding ground to pour gophers over his neighbors' farms.

Let's all work together on this. It not only means that your farm will be better protected from erosion but if the gophers are completely eradicated, you'll have more dollars in your pockets from crops usually destroyed.

FROM AN EROSION VIEWPOINT

It is reported that when Mr. M. R. Bently, Agricultural Engineer, A. & M. College of Texas, was being shown a beautiful oil painting, which depicted a deep ravine with wild flowers and other scenery, his only comment was "Golly, what a gully!"

STRIP CROPPING

Quite a few of our cooperators have prepared their land and planted winter strip crops during the last few days. The seed bed preparation is the most important part of the job just now.

Mr. Jonah Hall plowed a 14 foot strip on both sides of his terraces that were to be stripped, harrowed the terraces and freshly plowed ground with a bermuda digger, and followed with a one-horse drill. The S. E. S. furnished oats and barley mixed in equal parts at the rate of 2 bushels per acre and also 200 pounds of superphosphate per acre. The oats and barley should make an early feed crop and still leave time to plant a summer strip crop.

Mr. Virgil Stone and Mr. Sam Copeland used a disk harrow to prepare their seed bed. By double disking, this works fairly well, but first plowing with a turning plow gives best results.

Mr. John Wagner and Bragg Morris found that plowing 14 feet on both sides of the terrace then using a section harrow ahead of the drill gives satisfactory results.

Quite a few terraces on Mrs. Minnie F. Hall's farm, especially the part being farmed by Buford Hall, have had the proper plowing done on them. Buford Hall has just prepared some terraces for planting to winter strips. With a 13 inch Oliver he started at the edge of his terrace where the grader quit cutting and threw the dirt toward the terrace, cutting down the high side of the channel, breaking the hard ground and getting it in shape to work easily. In this manner he made 16 rounds on his terrace, which gave him a plowed strip 15 feet wide on both sides of the terrace. Then with a disk harrow he disked the terrace and the freshly plowed ground, getting it in fine shape for seeding.

The weather permitting, more oats and barley and some vetch plus the phosphate will be furnished for winter strip cropping. Get your land prepared and take advantage of the cooperation and assistance in the preparation of land and the planting of these winter strips on both terraces and stripped area in untterraced fields.

THE DUCK CREEK PROJECT IS A DEMONSTRATION

A little over a month ago the following named men were part of a group of Harrison County farmers who visited the Duck Creek Project. They were very much interested in the permanent pasture work, which includes clearing off the brush and worthless trees, contour furrowing, and seeding and sprigging the contour furrows with Bermuda grass.

That the visit was worthwhile to them is attested by the following statement from "On Texas Farms", released by the Texas Extension Service: "Mr. Jeter Newman and Beecher Newman of Harrison County have started a pasture demonstration. They have cut the brush, contoured the hillsides and placed Bermuda grass on the contours. Each one of them has seeded an acre with bur, hop, and white Dutch clovers."

THE ADDRESS OF BIG CHIEF GULLY

Fellow Gullies! It is with a heavy heart that I bring you this message. I have deeply appreciated the honor that you have bestowed upon me for the past decade. Some of our young members who are quite good sized today have been born during my time of office. I realize that I am aged; that my efforts have become more feeble with each of the passing years. My sides are heavily grown with brush and grass, my lower limbs are desecrated with trees and even my head and upper limbs are now becoming clogged with small brush and grass. I know my life is nearly run. I do not wish sympathy or pity. My life has been full. I have ruined 4 acres of land; I have killed 2 horses and 4 cows. Is there one among you who has done as much? But I have made my mistakes and it is of these I wish to speak. I will speak briefly of our allies and at length of our enemies. I hope especially that our younger members will heed some of the warnings that I will give.

It is proper that first I should classify our enemies and allies. Our first ally is runoff. Any method of cultivating land which will increase runoff is therefore an ally. Our enemies are all types of vegetation, contour cultivation, terraces, strip cropping, or anything that will reduce runoff or cover the soil so that it washes less readily. Now we have the activities of man as both an ally and an enemy. We must, however, class man as an ally. The history of our race shows that we follow man and his activities. We have never gained a strong grip on any country without man. Thus we must classify him as our ally.

A special type of man has been visiting us recently. He is from the S. E. S. The Soil Erosion Service, fellow members, is an organization of trained men that would introduce, to his brother and our ally, means of cultivation and cropping practices that would wipe us from the face of the earth. Our only hope is that men who have been our allies for generations will not desert us now. If they do, I see the doom of our race. Do not become too alarmed at this new menace. There are doings of man that we will never understand. Although man, our ally, and man, our enemy, are brothers they often act as enemies. Man, our ally, is distrustful of man, our enemy. Therein lies the hope of our posterity.

So much for man. Now let me warn you against the neglect of cancerous growths of grass, shrubs, trees, yes, and even weeds. They may seem unimportant at the time but if let alone they will grow on you until they begin to catch soil that you are trying to throw away. As they catch soil they catch seeds and before long your system will become clogged. I know that often our ally, a big heavy rain will come to our assistance and put you back in good condition again. But don't depend upon it. I did, and three times it repaired the damage due to my negligence, but the heavy rain did not come the fourth time until it was too late. That was five years ago, but my death started then, and was due to my carelessness. I should have caved off those clumps of grass and small brushes. I didn't though. I laughed at them; I wanted them to get a little larger before I destroyed them. I even forgot them for a period and when I again remembered it was too late. But even in my death struggles it is with pride I view my torturous length and great depth. I will die knowing that what I have destroyed will never be tillable again.

Enough of warnings. In closing let me say I am proud of our record in this community. The tabulated record of the year's program is not at hand but within my memory we have ruined 1,000 acres of good land, killed 37 head of livestock, and generally depreciated the value of all the farms on which we live. It is a record of which to be proud. Thank you!
-- Harvey G. Bobst in "The Land".

It is the duty of the Committee of Gullies to report that since the last annual meeting of the Gullies, Chief Big Gully has passed on. This loss is a severe blow to our organization at this time when we have a new enemy, the S. E. S., to combat.

The Committee urges each individual gully to make every effort to establish a progress record for the year. By united efforts we may be able to discourage this new enemy. A new "Chief" will be elected at the next annual meeting.

By order of the Committee of Gullies:

SOIL TYPES OF THE DUCK CREEK AREA

In preceding issues we have described Kirwin and Nacogdoches soils. Now we take up the Bowie series, which taken from all standpoints are about the most reliable soils of the Duck Creek area. Bowie soils are subject to severe erosion when waterlogged.

The Bowie topsoils are gray or brownish-gray on the surface but at a depth of several inches the subsurface is yellow. The surface layers pass at a depth of about 2 to 3 feet into yellow, friable sandy clay subsoils which are mottled or splotched with gray, yellow and red. The subsoil colors are somewhat similar to those of the Susquehanna soils but the friable, permeable structure differs greatly from the heavy dense clay beneath the Susquehanna soils. The Bowie soils are moderately rolling to undulating and have fairly rapid surface drainage, and free under-drainage.

The fine and very fine sandy loams are the most extensive soils of the series. The principal natural vegetation consists of various species of oaks, such as post-oak and red-oak, and a few other kinds of trees. The Bowie soils are only moderately productive but are affected by variations of rainfall less than are the other soils of the area and for this reason, they produce good yields more consistently than do the other series.

STAFF MEETINGS

Joint meetings of both permanent and temporary staffs are being held each Thursday night, for the purpose of discussing erosion control problems and informing each member about all the phases of the control program.

Mr. B. H. Hendrickson, Superintendent of the Soil Erosion Experiment Station (U.S.D.A.) Tyler, was speaker at a recent meeting, and presented some interesting facts concerning experimental procedure on the Station.

Messrs. Hendrickson, Baird and Archer of the Erosion Experiment Station are frequent and always welcome visitors at the Lindale project.

COOPERATOR COMMENTS

Mr. C. W. Flewellen -- "I figure that the erosion control work on my farm has already increased its value fifteen hundred to two thousand dollars. I believe the contour furrowing in the pastures will be as valuable as the terraces in the fields."

Mr. I. D. Ham -- "I want to invite everybody to come to see the work that has been done on my farm. Knowing the farm as I do, I want to show them how much better the new work is than anything I had been able to do in the past."

Mr. S. S. Copeland -- "In that field out there there are knolls that have washed off four or five feet since I was a boy. The erosion control work is fine. I'll do everything in my power to make it a success."

And the Ladies Say:

Mrs. Alice Tunnell -- "I am very proud of the work done on my farm. I want to thank every one of the men who helped in any way."

Mrs. C. C. Kersh -- "Ever since we have been here I have dreamed of seeing the place protected from washing away. Now that the Soil Erosion Service is doing its work, I feel that my dream is coming true."

Mrs. Mattie G. Shuart -- "The erosion control work is fine. It is what this country has needed for years."

COOPERATION

"It is the sole purpose of the Soil Erosion Service to develop a national program of expansion in which it will work hand in hand with the Extension Service, the State Colleges of Agriculture, the State Experiment Stations, and all other organizations which can in any way contribute to the continuing welfare of the land and those who till it." -- H. H. Bennett, U. S. Soil Erosion Service.

VISITORS

Dr. N. E. Winters, Regional Director, Stillwater Creek Project, Stillwater, Oklahoma.

Mr. W. M. Burkes, County Agent, Upshur County, with a group of forty-five interested farmers.

Mr. Mac McConnell, County Agent, Anderson County, with County Judge James Moore, County Commissioners Harding and Isabell and Mr. Harris of Dallas.

Mr. W. F. Beaman, Senior Draftsman, Soil Erosion Service, Washington, D. C.

Mr. A. J. Thompson, Engineer, E. C. W., Washington, D. C.

Mr. Floyd Dodson, farmer of Wood County.

Mr. Roy E. Penn, Agronomist, Stillwater Creek Project, Stillwater, Oklahoma.

Mr. B. H. Hendrickson, Superintendent, Soil Erosion Experiment Station, Tyler, Texas.

Mr. L. P. Allen, Teacher of Vocational Agriculture, Upshur County, with fifteen Vocational Agriculture students.

Mr. A. B. Mayhew, President Texas Nursery Company, Sherman and Tyler, Texas.

Mr. T. M. Dillard, Field Man, Dallas Joint Stock Land Bank, Waco, Texas.

Mr. T. B. Chambers, Assistant Chief Engineer, Soil Erosion Service, Washington, D. C.